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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CHANKONG, DOHM	

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,880	WATKINS ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1> Applicant's amendment has been received. Claims 1-16 are presented for further examination.

Response to Arguments

2> Applicant's arguments and amendment filed 2.7.2005. have been fully considered but they are not persuasive and do not overcome the prior art.

Applicant is arguing in substance: a) that Primak does not disclose a plurality of file server devices capable of performing a request file transfer function with respect to a particular data file identified by a client request; b) that Primak does not disclose that the selected file server accesses a common storage device to transfer the particular data file identified by the request; c) that Primak.2 does not disclose a load balancer associated with a virtual address connection; and d) amended the claims to specify that the servers are file servers, and the function to be performed is a file transfer function.

With regard to point a), Applicant asserts that Primak is concerned with routing dynamic content, where the dynamic content is not identified by the client request to support his view. However, Primak makes several references to the client request including a content label, the content label identifying the content requested by the client [column 4 «lines 43-44» | claim 1]. The passage in Primak pointed to by Applicant is in reference to why a content label for the content is necessary; while the content is dynamic and changing, the content label is static, and therefore the same content label can be used by the client to refer to the dynamic content. So, utilizing the content label specified within the client request,

Primak's system is able to perform a file transfer function with respect to the particular data file identified by the client request and the content label, and consequently, retrieve the file from the file server [column 6 «lines 15-34»].

With regard to point b), Applicant is referencing one embodiment of Primak's invention. Primak also discloses that the main point of having multiple databases (and they are synchronized, having the same data [column 4 «lines 30-32»]) is for redundancy. For instance, if database 40a were to fail, then the content would still be available to servers that can access database 40b [column 7 «lines 30-57»]. In this particular embodiment, there is only one available database, that is accessible, but it is accessible to the plurality of file servers in server cluster 140. And as be in seen in Figure 1, database 40b is a common storage device the server cluster 140. Therefore, database 40b is analogous to a common storage device as claimed.

With regard to point c), Primak.2 clearly discloses a router that utilizes a virtual IP address [Figure 1 ("VIP: 2.2.2.2") | column 3 «lines 37-48» where: Primak.2's router is analogous to a load balancer]. The router in Primak.2 is delegated to choosing a server based on their load, hence, it is analogous to a load balancer.

With regard to point d), the amendment to file server devices, does not overcome the Primak reference. Primak clearly discloses that the client request content from the content server devices [abstract]. Since one of ordinary skill in the art could have reasonably inferred that "content" is analogous to "file", Primak's content servers can be considered file servers. Also, Primak's client requesting content from the server devices is essentially a file transfer

function since the result of the request leads to the content being transferred to the client from the server.

For these reasons, Examiner believes the 35 U.S.C § 103(a) rejections are proper.

Claim Rejections - 35 USC § 103

3> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4> Claims 1-5, 7, 9-13 and 15 are rejected under 35 U.S.C § 103(a) as being unpatentable over Primak et al, U.S Patent No. 6.598.077 ["Primak"], in view of Primak et al, U.S Patent No. 6.389.448 ["Primak.2"].

5> Primak.2 was disclosed by Applicant in IDS #3, dated 11.20.2002.

6> As to claim 1, Primak discloses a data management system that communicates with a client terminal [Figure 1], the system comprising:

a plurality of file server devices, each capable of performing the server function requested by the client terminal, and wherein each of the plurality of server devices has access to a common storage device [Figure 1 <items 130, 140, 40a, 40b> | column 2 <line 57> to column 3 <line 5> | column 7 <lines 9-15>]; and

a load balancer for receiving the request and for selecting one of the plurality of server devices to perform the requested function [column 7 <lines 7-29> | column 8 <lines 52-65>];

wherein the load balancer routes the request to the selected server device to perform the requested function, and wherein the selected server device accesses the common storage device to transfer the particular data file identified by the request [column 7 <lines 5-15> | column 8 <lines 52-65> | column 10 <lines 41-52> | column 11 <lines 3-5].

Primak does not explicitly disclose the system comprising a virtual address connection defining a network address to which the client terminal sends a request reflecting a file transfer function with respect to a particular data file identified by the request, and consequently, also does not disclose that the load balancer is associated with the a virtual address connection.

7> Primak.2 discloses a system comprising a load balancer with a virtual address connection defining a network address to which the client terminal sends a request reflecting a file transfer function with respect to a particular data file identified by the request [Figure 1 <items 60,30> | column 4 <lines 31-39>]. It would have been obvious to one of ordinary skill in the art to implement Primak.2 's virtual address functionality into Primak's data management system, and specifically, in Primak's router, so that Primak's clustered servers can share a single virtual IP address. Virtual IP addressing is well known in the art and suggested by Primak.2 as allowing multiple servers to share a single address so that each server in the cluster can easily be addressed (using a single address) by clients or systems located outside the server cluster. One of ordinary skill in the art would have reasonably

inferred this implementation as Primak discloses the use of a router and server cluster system similar to that disclosed in Primak.2's invention.

8> As to claim 2, Primak discloses the system of claim 1, wherein the plurality of file server devices operate in parallel [Figure 1 <items 130,140,30(a...g)> | column 8 <lines 52-65>].

9> As to claim 3, Primak discloses the system of claim 1, wherein the request is a data file request and wherein the client terminal sends all requests to the router [column 10 <lines 45-52>], but does not explicitly disclose that the requests are sent to the virtual address connection.

10> Primak.2 discloses a data management system wherein requests are sent to a virtual address connection [Figure 1 <item 30>]. See paragraph 8 for rejection basis and motivation to combine references.

11> As to claim 4, Primak discloses a plurality of client terminals, and a load balancer that determines the one of the plurality of file server devices that will perform the server function requested by each of the plurality of client terminals [column 5 <lines 63-66> | column 11 <lines 3-21> where: although Primak does not specifically state that there are a plurality of client terminals, one of ordinary skill in the art would have reasonably inferred that since Primak is disclosing the use of load-balancing techniques, that there would be multiple clients in the system that would cause the load].

While Primak discloses client terminals sending requests to a router [abstract], he does not explicitly disclose the client terminals sending respective requests to the virtual address connection.

12> Primak.2 discloses a data management system wherein client terminals send requests to a virtual address connection [Figure 1 <items 60,30>]. See paragraph 8 for rejection basis and motivation to combine references.

13> As to claim 5, Primak discloses the system of claim 1, wherein the load balancer randomly determines the file server device that will perform the server function [column 8 <lines 47-51>].

14> As to claim 7, Primak discloses the system of claim 1, wherein the load balancer determines the file server device that will perform the server function based on a current processing load of each server device [column 11 <lines 3-5>].

15> As to claim 9, Primak discloses a method for operating a data management system that communicates with a client terminal [abstract | Figure 1], the method comprising:

receiving, from the client terminal, a request for performance of a file transfer server function with respect to a particular data file identified by the request, wherein the file transfer request is received at an address connection defining a network address to which the client terminal sends the request for performance of the file transfer function [Figure 2 |

column 6 «lines 54-67» | column 7«lines 16-29» | column 10 «lines 41-52» where: Primak's router is comparable to a client terminal for this embodiment; the router requests performance information from the];

selecting one of a plurality of file server devices to perform the requested file transfer function, wherein each of the plurality of file server devices is capable of performing the requested file transfer function, and wherein each of the plurality of file server devices has access to a common storage device for storing the particular data file to be transferred in accordance with the client request [Figure 1 <items 10a,10b> | column 7 <lines 5-15> | column 8 <lines 52-65> | column 10 <lines 41-52> | column 11 <lines 3-5];

forwarding the client request to the selected file server device [column 11 «lines 3-14»];

accessing, using the selected file server device, the storage device to transfer the particular data file identified by the request [column 10 «lines 45-49»]; and

forwarding a file server response to the client terminal based on the accessing by one selected file server device [column 1 «lines 43-47» | column 11 «lines 14-16»].

Primak does not explicitly disclose that the request is received at a virtual address connection.

16> Primak.2 discloses a data management system wherein a request is received at a virtual address connection [Figure 1 <items 60,30>]. See paragraph 8 for rejection basis and motivation to combine references.

17> As to claims 10-13 and 15, they do not teach or further define over the limitations recited in claims 2-5 and 7. Therefore, they are also rejected for the same reasons set forth in claims 2-5 and 7, supra.

18> Claims 6 and 14 are rejected under 35 U.S.C § 103(a) as being unpatentable over Primak, Primak.2, and Nozaki, in further view of O'Neil et al, U.S Patent No. 6.128.279 ["O'Neil"].

19> Primak does disclose load-balancing, but does not disclose a system wherein the load balancer determines the file server device that will perform the server function according to a predetermined rotational order.

20> O'Neil discloses the use of predetermined rotational order (or round-robin) in a network is a well known technique for load-balancing and expected in the art for providing a means for distributing processing loads among a cluster of network devices [column 1 <lines 31-41>]. Therefore one of ordinary skill in the art would have reasonably inferred the use of the predetermined rotational technique for load-balancing in Primak's system for providing another means of determining which server to choose for serving the client request.

21> As to claim 14, it does not teach or further define over the limitations of claim 6. Therefore, claim 14 is rejected for the same reasons as set forth in claim 6, supra.

22> Claims 8 and 16 are rejected under 35 U.S.C § 103(a) as being unpatentable over Primak, Nozaki and Primak.2, in further view of Cohn et al, U.S Patent No. 5.606.679 ["Cohn"].

23> Primak does not disclose a system further including a data share unit for preventing multiple file server devices from simultaneously accessing the same storage location of the server storage device.

24> Cohn discloses a system further including a data share unit for preventing multiple server devices from simultaneously accessing the same storage location of the storage device [Figure 1 <item 18> | column 8 <lines 2-7>]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Cohn's data share unit and its functionality into Primak's system to prevent concurrent access of the server devices to the same physical storage device to prevent possible corruption of the data in the storage device.

25> As to claim 16, it does not teach or further define over the limitations of claim 8. Therefore, claim 16 is rejected for the same reasons as set forth in claim 8, supra.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nozaki, U.S Patent No. 6.128.644.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC

Dung C. Dinh
Primary Examiner